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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/719,149

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Steven R. Sedlmayr

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08/09/2004

Law Office of Roxana H. Yang
P.O. Box 3986
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EXAMINER

FINEMAN, LEE A

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/719,149

Applicant(s)

SEDL MAYR, STEVEN R.

Examiner

Lee Fineman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 233-288 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 233-288 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “second projection means” (claims 240, 254, 268, 282) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. While the claims are considered part of the original disclosure, a written description of the claimed details must be described in the specification. Accordingly, the specification should be amended to include a second projection means (claims 240, 254, 268, 282). See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction is required.

Claim Objections

3. Claims 269, 271, 274, 283, 285 and 288 are objected to because of the following informalities:

Regarding claims 269 and 283, the limitation “the means for adjusting the electromagnetic spectrum” lacks antecedent basis.

Regarding claims 271 and 285, the limitation “the means for adjusting a magnitude” lacks antecedent basis.

Regarding claim 274, the limitation “the means for the magnitude” lacks antecedent basis and also is grammatically unclear as it is missing the verb.

Regarding claim 288, the limitation “the means for adjusting the magnitude” lacks antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 236, 250, 265 and 278 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear how the primary beam can have both randomly changing orientations of a chosen component of electromagnetic wave field vectors and substantially the same selected predetermined orientation for the chosen component of the electromagnetic wave field vector or if the beam has two different states (random and predetermined), which beam state continues to step [b].

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 233-234, 236, 239, 241-248, 250, 253, 255-262, 264, 267, 269-276, 278, 281 and 283-288 are rejected under 35 U.S.C. 102(e) as being anticipated by Atarashi et al., U.S. Patent No. 5,172,254.

Regarding 233-234, 236, 239, 247-248, 250, 253, 261-262, 264, 267, 275-276, 278 and 281, Atarashi et al. disclose in fig. 5 a system and method of producing a modulated beam of electromagnetic energy/light, comprising:

[a] means (1 and 2) for providing a substantially collimated (by 2) primary beam of electromagnetic energy/light having a predetermined range of wavelengths and randomly changing orientations of a chosen component of electromagnetic wave field vectors;

[b] means (13) for resolving the primary beam of electromagnetic energy/light into a primary first resolved beam (travels toward 21BP) of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors (P) and a primary second resolved beam (travels toward 16) of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of the electromagnetic wave field vectors (S);

[c] means (21BP, 21GP1, 21BS, 21GS1) for separating each of the primary resolved beams of electromagnetic energy/light into two or more separate beams of electromagnetic energy/light, each of the separate beams of electromagnetic energy/light having a selected predetermined orientation of a chosen component of electromagnetic wave field vectors (P or S);

[d] means (15BP, 15GP, 15RP, 15BS, 15GS, 15RS) for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy/light by passing the plurality of portions of each of the separate beams of electromagnetic energy/light through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate

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beams of electromagnetic energy/light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner as the plurality of portions of each of the separate beams of electromagnetic energy/light passes through the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors (column 7, line 56-column 8, line 12);

[e] [i] means (21GP2, 21RP) for combining the altered separate beams of electromagnetic energy/light of the primary first resolved beam of electromagnetic energy/light into a first single collinear beam of electromagnetic energy/light without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy/light, and [ii] means (21GS2, 21RS) for combining the altered separate beams of electromagnetic energy/light of the primary second resolved beam of electromagnetic energy/light into a second single collinear beam of electromagnetic energy/light without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy;

[f] [i] means (17) for resolving from the first single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy/light having substantially a second selected predetermined orientation of a chosen

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component of electromagnetic wave field vectors, and [ii] means (17) for resolving from the second single collinear beam of electromagnetic energy/light a first resolved beam of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy/light having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors; and means (19) for passing at least one of the resolved beams of electromagnetic energy/light from step [f] to a projection means (20). The method of utilizing the structure of the claim is inherent therein. Further, in as much as claims 236, 250, 264 and 278 are able to be understood in light 35 U.S.C 112 rejection made above the rejection applies.

Regarding claims 241-246, 255-260, 269-274 and 283-288, Atarashi et al. further disclose comprising means (21GP1, 21GS2 or 15BP, 15GP, 15RP, 15BS, 15GS, 15RS) for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy/light; wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy/light is also the separating means and includes means (21GP1, 21GS2) for adjusting a predetermined range of wavelengths of at least one of the separate beams of electromagnetic energy/light or wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes a means (15BP, 15GP, 15RP, 15BS, 15GS, 15RS) for adjusting a magnitude of at least one of the separate beams of electromagnetic energy (column 10, lines 8-11, in so far as density in this context is considered the intensity or magnitude of the light).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 237-238, 240, 251-252, 254, 265-266, 268, 279-280 and 282 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atarashi et al. in view of Sato et al., U.S. Patent No. 5,042,921.

Regarding claims 240, 254, 268 and 282, Atarashi et al. disclose the claimed invention except for further comprising means for passing one of the resolved beams of electromagnetic energy from step [f] [ii] to a second projection means. Sato et al. teaches in fig. 24 a system and method wherein two beams are projected via two projection means (727, 728, fig. 24). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a second projection means to the system of Atarashi et al. as suggested by Sato et al. to be able to move the images and provide better contrast (Sato, column 23, line 52-column 24, line 16).

Regarding claims 237-238, 251-252, 265-266 and 279-280, Atarashi et al. disclose the claimed invention except for in which the means for resolving the primary beam of electromagnetic energy/light into primary first and second resolved beams of electromagnetic energy/light includes means for resolving the primary beam of electromagnetic energy/light into primary first and second resolved beams of electromagnetic energy/light with the resolved beams of electromagnetic energy/light

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having the substantially same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors substantially across each of the resolved beams of electromagnetic energy/light as that of the other resolved beams of electromagnetic energy/light. Sato et al. teaches in fig. 2 wherein the primary first and second resolved beams (from elements 8 and 10) of electromagnetic energy/light have the same selected predetermined orientation of the chosen component of the electromagnetic wave field vectors (P). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the primary first and second resolved beams be the same predetermined orientation as suggested by Sato et al. to provide the same light qualities to all the components for more consistent images.

10. Claims 235, 249, 263 and 277 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atarashi et al. in view of Konno et al., U.S. Patent No 4,497,015.

Atarashi et al. disclose the claimed invention except for the primary beam being a having a rectangular cross sectional area. Konno et al. disclose a light illumination device (fig. 5) that produces a primary beam (at M) that has a rectangular cross sectional area (using lens element 102, fig. 3; column 3, lines 5-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the light source of Atarashi et al. with that of Konno et al. to meet the needed rectangular shape for a particular component, application or device (Konno, column 3, lines 3-5).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313.

The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LAF
August 5, 2004


MARK A. ROBINSON
PRIMARY EXAMINER